



Quality Control & Validity in Testing for NUIC

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Abstract

Naresuan University International College (NUIC) is an international educational institution on the brink of new responsibilities and accountabilities as the ASEAN Economic Community (AEC) approaches. As an assurance for the quality of the graduates NUIC is producing, it becomes necessary to examine the methods of testing in the institution to evaluate the validity of the testing procedures to ensure they are comparable with international education standards, as well as procedures and methodologies that will progress validity in the actual examinations as well. Quizzes and examinations are critical components to validating a learner's comprehension of presented material unified with industry expectations, hopefully, and a vital part to assessing the learner's attention to not only the curriculum and industry relevant to their educational path, but also concurrent with the expectancies of discipline and fortitude needed to achieve educational excellence and prove themselves to be a competent student and contributor to community development. Through the review of relevant material circulating throughout the AEC regarding testing validity, as well as the perspective of NUIC students, this report outlines the primary concerns and addresses the policies and methodologies that will contribute and enhance the overall testing quality at NUIC.

Keywords: quality assurance, examination, curricular validity, cheating, educational standard

Introduction

The inherent problem I have seen so often in educational faculties throughout Thailand, from Chiang Mai to Bangkok to Pattaya and beyond, is the common misconception that importance need not be placed on the validity of college and university testing for more favorable reviews of teacher performance or improved statistics of successful graduates for institutional portfolios. While this could imply a certain degree of falsification, either by instructor or institution, it is more often the direct cheating on quizzes and examinations by the students themselves, yet made allowable by instructors intentionally or unintentionally (Fawcner, & Keremidchieva, 2004, p. 118; McCabe, 2003, p. 9; Udomwitayakrai, 2009, p. 15). This report will show the need for focus on the current conditions from the learner's perspective, and a framework for

procedure will be established that validates the testing policies, test formation and review/approval, and grade reporting for international recognition for a progressive, reliable, and investor-friendly business environment cultivated for the future of Thailand.

Research Methodology

The methodology was both quantitative and qualitative focus, but was not mutually exclusive since some participants chose to give multiple responses. The one hundred and two participants included sophomore, junior, and senior level learners across three different programs of study including Human Resource Management, International Business, and English for Business. Participants were given a home-based assignment in order to consider their responses carefully, their submissions due within a two-week timeframe using a second



language. Frequency distribution was used with single and multiple answers for a more natural comprehensiveness (Pansiri, 2005) than the rigidity of one or two styles that belies the report's quantitative point (Bryman, 2011). This effectively contributed to over 200 multiple coded responses in some cases contrasting with single coded responses by other participants, and analyzed through univariate data analysis specifically for frequency distribution recording the reoccurring responses. Qualitative data from 'Questions 2, 3, and 4' used a pragmatic, eclectic tactic that matched the question with commonalities in themes amongst participant responses using a variance approach between responses to specific themes, example instinct responses compared with calculated responses, and were indicative of the popularity in causative responses from personal, social, or institutional expectancies (Pansiri, 2005).

Findings

Post-analysis, participant quantitative answers to question 1: "Describe the ways you use to cheat" revealed the predictable responses, with a range of thirteen difference responses recorded ranging from personal inability, lack of comparative comprehension skills that should have been learned in primary and secondary education, and the capitalization of lecturer malpractice that specifically included lecturers' apathetic acceptance of cheating as tradition, incompetence of appropriate oversight during testing, or cooperative behaviors from instructors who sympathize with learner deficiencies or disinterest in subject material, as recorded in Table 1. Participant qualitative responses to questions 2, 3, and 4 were categorized into two orientations; performance results

(43%); and mastery results (57%). The performance results commonalities from Question 2 depict a slightly higher range in ratio between (2i) instinct responses and the (2ii) calculated responses to the notions of cheating, as seen in Table 2. The results of mastery results from Question 3 indicated (3i) a predilection towards gaining preferential acknowledgement in social circles, or (3ii) preferred career options upon graduation, as seen in Table 3. Question 4 results, however, were split between Table 2 and Table 3 due to the variance in nature responses from participants swinging from 36% of participants focusing between instinctive and calculated performance desires, and 64% focusing between preferential social acknowledgement and preferential careers.

Discussion

Persistence in previous or more traditional forms of educational development is precisely what has put Thailand on the bottom of comparative educational standards with other countries (Richmond, 2007; Schwab, 2012; Schwab, 2013; Sujjapongse, 2011). International trade and multinational companies do not conduct business activities in countries where guaranteed profit and long-term sustainability are not self-evident and transparent (Aramnet, & Mahachai, 2013), and if the educated workforce in that country is below international standards, then foreign investment and industrial development will be non-existent since they view it as a sign of lacking in attentiveness and care (Aramnet, & Mahachai, 2013; Sujjapongse, 2011). This can be seen with the massive number of Chinese companies choosing Vietnam and Cambodia for relocation of their factories out of Thailand (CLMV,



2013; Dinh Lam, 2012; Harris, 2013) with the impact to Thailand estimated at “\$5.541 billion of foreign direct investment (FDI) opportunities from Thailand to neighboring countries” (Chowdhury, 2014; CLMV, 2013; Dinh Lam, 2012). This includes national dangers as those stated by Ath Pisalvanich, director of the University of the Thai Chamber of Commerce International Trade Studies Centre, in a press conference on March 26, 2014 reporting on ⁽¹⁾low economic growth, ⁽²⁾unstable politics, and ⁽³⁾lack of investor confidence, that some “480 of 4,000 small and medium-sized Thai enterprises are planning to invest in neighboring Indonesia, Myanmar, and Laos with a total investment of Bt77 billion” (Thai News Agency, 2014) no longer in Thailand’s GDP. Consequently, if investment and GDP growth is to return to a progressive state, confidence in Thailand’s worldwide competitiveness capability is obviously a nationwide imperative... not an option or consideration... an imperative (Chowdhury, 2014; Sujjapongse, 2011). It becomes apparent to help improve adult education, NUIC can provide the critical need for improvement through validated curriculum, greater scrutiny of curriculum and learning environments, but most especially to qualify graduates that can be seen favorably by foreign investment. The key concerns for validity and accountability from an international confidence perspective (Carnegie Mellon, 2009; Fawkner, & Keremidchieva, 2004; McCabe, 2003) focus on:

- Plagiarism in student submissions from neighboring student examinees
- Malpractice of incompetent tests or incompetent instructors
- Institutionally standardized formatting on all examinations for uniformity and grading
- Acceptability by instructors of substandard student submissions
- Basic explanations and details of the rules and consequences for cheating
- Follow-through with punishment as per the rules when violations occur
- Routine review of policies, formats, rules, and guidelines of testing for instructors

Conclusion

The perception that must be altered is the idea that cheating is acceptable. It is not. Common opinions is that, ‘It is something that has always been done and should therefore be allowed to continue since they did it when they were studying’ (Chantavanich, 2003; Crittenden, et al., 2009; Jitgarun, et al., 2009), or that, ‘It is something that stems from a student’s lack of familiarity with the language or background in the subject since it is something foreign to their historical education experiences’ (Chantavanich, 2003; Jitgarun, et al., 2009). Both of these notions are flawed because they continue the failing state of educational development (Crittenden, et al., 2009), much like the failing academic performance of Thailand as reported by the 2011, 2012, and 2013 WEF findings showing Thailand’s fall to the bottom of the ASEAN 8 (Aramnet, & Mahachai, 2013; Richmond, 2007; Schwab, 2012; Schwab, 2013; Sujjapongse, 2011, p. 3). Consistently, Thailand has ranked at the bottom of these scores and continues to get worse despite improvements in macro-environment factors raising Thailand’s competitiveness by 6-points, while education rankings dropped 9-points (Schwab, 2013; Richmond, 2007). Statistics show Thailand is lower in educational performance, with Vietnam and Cambodia now surpassing Thailand in academic



performance in 2013 (Chinnawongs, et al., 2006; Ng, 2001; Pimpa, 2009; Richmond, 2007; Sangnapaboworn, 2003). As countries throughout Southeast Asia gear-up for changes and competition in the AEC, especially the original “ASEAN 8” that includes Thailand (Aramnet, & Mahachai, 2013; Richmond, 2007; Schwab, 2012; Schwab, 2013; Sujjapongse, 2011, p. 3), how can graduates be expected to make a positive impact for their respective countries if their education is deficient?

Suggestions

Improvements are needed to content formation of examination forms and procedures of testing relative to cognitive validity in learners (Carnegie Mellon, 2009; Fawker, & Keremidchieva, 2004; McCabe, 2003).

1. Security Procedures

- **Prevention of Malpractice:** Proctoring duties should be regulated by instructors not associated with the subject to validate the student’s comprehension and prevention of guided testing.

- **Assigned Examination-Room Seating:** Prevention of pre-test prepping with hidden notes and ‘cheatsheets’ through assigned seating based on students’ ID numbers, as well as secured and locked examination rooms not accessible by students before testing.

- **Sterile Toilet Assurance:** Toilet breaks must be ensured to be free of cheating devices through proctor-escorted visitations and pre-use inspection of toilet.

- **Audit Quality Assurance:** After grading is complete and reviewed with learners, examinations should be relinquished to the college for storage for auditing purposes, externally or internally.

- **Student Devices:** All students’ bags, pencil cases, jackets, etc. should be eliminated from the examination room, as well as distancing between seats and prevention of speaking.

- **Physical Behavior Monitoring:** Behaviors such as raising papers high enough for others to ‘share’ answers must be prevented, as well as hiding of cheating devices with hair or clothing.

- **Cheating Devices & Methods:** Attention to devices like hidden ‘cheatsheets’ under pen caps, rubbers (erasers), or caps for liquid paper, as well as down bras, up sleeves, and up skirts, etc.

2. Content Formation Relative to Security

To prevent cheating requires the exclusion of testing tools long-practiced for their traditional application, but more because of their ease of use for grading by instructors. These tools should be excluded because they allow for the proclivity toward falsified answers, and include:

- **Yes/No Questions** (signaling danger for passing answers... i.e. pen-clicking, coughing, etc.)

- **Multiple-Choice** (acceptable if no more than 20% utilization; signaling danger, again)

- **Gap-Fill** (inadequate for testing comprehension, but also threat of visual plagiarism)

Recommended inclusive tools for quality assurance and security are as follows:

- **Vocabulary Comprehension:** Paraphrased definitions from presented homework and lectures requiring identification of an appropriate corresponding vocabulary word (sans vocabulary box guiding student responses... those are guided response triggers invalidating cognitive validity).

- **Comprehension Short-Answer Questions:** Assurance of learner’s ability to comprehend



utilization of vocabulary in critical thinking applications.

- **Essay Comprehension Writing:** Extreme application of relevant vocabulary in a highly detailed critical thinking exercise, provided that essay content pre-testing awareness is eliminated.

- **Case Study Analysis & Recommendations:** Most efficient form of critical thinking exercise demanding thorough understanding of both vocabulary and cognitive application scenarios.

- **Practical Application Exercises:** Applicable for subjects involving science-based subjects such as mathematics, accounting, statistics, etc.

3. **Standardized Formatting:** Critical to international acceptance is standardized documentation consistent in appearance, purpose, and order for all subjects tested by NUIC. This should include examination

document templates, grading rubrics, and reporting forms (i.e. TQF).

4. **Adoption of an On-Going Quality Control Committee:** Comprised of a key administrator for academic review, an administrator for the president's office, a permanently elected Quality Assurance (QA) Assessor accountable for ensuring international quality standards, and a revolving team of instructors nominated at the beginning of each semester, each one reviewing of each examination for relevant coherence and compliance.

Tables and Figures

Table 1 Frequency Distribution of Quantitative Questioning

Question 1: "Describe the ways you use to cheat on a quiz or exam?"	Number of Value Replies	%
Claim to not cheat	5	2.33
Body Language (i.e. number of fingers in relation to multiple-choice answers)	9	4.2
Sounds (i.e. coughing, table-tapping, pen-clicking, etc. for possible multiple-choice answers)	2	0.93
Position (i.e. diagonal sitting for raised paper to allow friends sitting behind to see over shoulder)	38	17.8
Cheatsheets (i.e. small pieces of paper hidden on persons or writing equipment)	60	28.03
Verbal Communication (i.e. whispering to neighbors asking for answers)	22	10.3
Smartphones (hidden in clothing to sneak into examination room)	21	9.81
Refused to answer, or indeterminable responses	4	1.9
Malpractice (incompetent tests or incompetent instructors)	13	6.1
Pre-Test Examination Room Preparation (i.e. hiding notes or writing on desks pre-exam)	12	5.6
Physical Person Notes (i.e. writing on skin, up-skirts, down-blouses, on wrists, etc.)	23	10.74
Cheating Devices in Toilets	3	1.4
Exchanging Papers between Students	2	0.93
TOTALS	214	100.07



Table 2 Performance Results

Variance Ratio in Question 2: “Why do you cheat on an exam or quiz?”	Goal-Orientation		%	
	2i: Instinct	2ii: Calculated	2i	2ii
Afraid of receiving negative grades; fear of low GPA; feelings of insecurity or lack of confidence		57		32.2
Laziness; failed to study adequately; disinterested; lack of proper attentiveness to lecturer or subject material	34		38.64	
Parental expectancies in relation to funding or moneys spent; career expectancies; social acceptance		15		8.47
Don't have enough time; study-load too heavy		7		3.95
Subject material too difficult; inadequate language comprehension skills; inability to recall material	38		43.18	
Non-relevant or no idea responses	3		3.41	
Variance Ratio in Question 4:				
“Do you think there is a better way to learn instead of cheating?”				
Complete homework assignments; study more; self-discipline		81		45.8
Build confidence; stay positive	5		5.68	
Ask questions; consult with lecturers		16		9.04
Irrelevant or incomplete responses; no idea responses	8		9.09	
Change major of study to native language program of study		1		0.56
TOTALS	88	177	100	100.02

Table 3 Mastery Results

Variance Ratio in Question 4: “How does cheating help your education?”	Goal-Orientation		%	
	3i: Social Acknowledgment	3ii: Career Options	3i	3ii
Cannot gain the knowledge paid for; bad for future career		52		53.61
Improve GPA, help to pass; improve chance of getting a better job		39		40.21
Irrelevant response; non-responsive		4		n/a
Social pressures; peer-pressure; family expectations	11		44	
Bad behavior; laziness; don't want to waste money; don't consider it to be cheating – a good strategy to pass	7		28	
Variance Ratio in Question 4:				
“Do you think there is a better way to learn instead of cheating?”				
Consideration of consequences for career; think about the career impact for future goals		2		2.06
Learning externally; outside tutoring; teacher-parent collaboration on curriculum improvement		4		4.12
No suggestible alternative – cheating is best; traditional in Thailand	7		28	
TOTALS	25	97	100	100



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